Air Combat Command Aircrew Distributed Mission Training

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HQ ACC/DOTO

OVERVIEW

- Constraints to realistic training
- Aircrew Distributed Mission Training (DMT-A)
  - Team Training
  - Mission Rehearsal
- DMT Network Components
- Challenges

READINESS TRAINING

RAP is used to…

Program and schedule flying hour program….

Measure combat ready status of individual and units…

While RAP sorties and events are based on combat requirements, they are constrained by several factors…

CONSTRAINTS TO TRAINING

Constraints are becoming more significant…

Resources and funding… ranges, flying, time, etc.

Equipment and personnel… airframe wear, opstempo, deployments, etc.

Safety and security… live weapons employment, classified systems, etc

… modern weapons and employment concepts require extensive airspace, large ranges, and more composite training opportunities.

AIRCREW DISTRIBUTED MISSION TRAINING

One solution is to enhance aircrew training…

…in a synthetic battlespace

AIRCREW DISTRIBUTED MISSION TRAINING

Team Training . . . Mission Rehearsal

Train aircrews in a realistic, fully integrated environment, capable of supporting the entire spectrum of training from individual training up to campaign-level mission rehearsal.

PRIMARY CAPABILITIES

- **Team training - wing/squadron**
  - **RAP requirements**
  - **Realistic battlespace based on unit's training needs (local area, expected theaters, challenging adversary)**
- **Mission rehearsal - AEF/JFACC**
  - **Based on mission essential tasks derived from real-world mission**
  - **Replicate mission battlespace conditions (terrain, weather, imagery, opposition forces)**

Team training and mission rehearsal support operational commanders

ANCILLARY CAPABILITIES

Mission Rehearsal

DMT

Team Training

Experimentation

Warfighting concepts
Tactics Development
Weapons testing
R&D
OFP tape testing
Training technology
Test & Experimentation

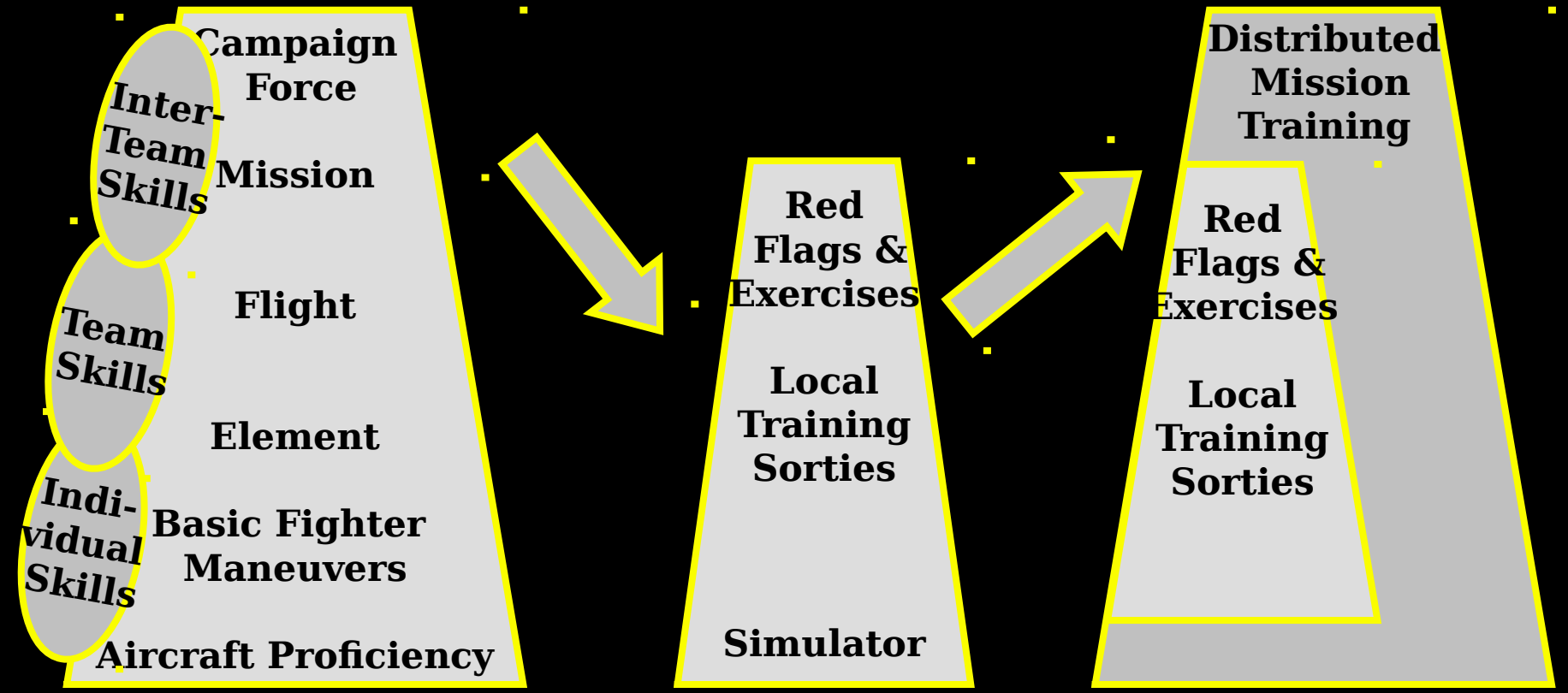
Exercises

Battlestaff training
CINC support

The DMT team training and mission rehearsal battlespace provides important non-operational capabilities for experimentation and exercise

TEAM TRAINING

Team Training will be responsive to unit commanders and complement live fly.



Hierarchy of Combat Skills Current Flying Training Training with MTC

DMT MISSION REHEARSAL

Integrated with AEF preparation

- DWC assembles databases/scenarios using real-world intel, terrain, enemy orders of battle, etc.
- MTCs conduct team and inter-team rehearsal events

Link JFACC with AEF warfighters

- Connect deployed and on-call units
- Practice/analyze courses of action
- MTCs and DWC continue team and inter-team rehearsal events

(Normal daily DMT team training)

Normal Ops 9 1/2 Months | **Preparatory Period** 2 Months | **Vulnerability Period** 3 Months

15 Month AEF Life Cycle

DMT-A can be used to prepare and support AEF warfighters for operations in their AOR

ACC DMT ROADMAP

ACC Goal - Robust mission environment by FY06

Mission Training Center (MTC) at each operational unit

Distributed Warfighting Center (DWC) to support MTCs

Fighter & Air Battle Management

DWC
F-15C
AWACS

Package & some Composite Force

F-16(50/40)
Rivet Joint
B-2

Air Expeditionary & Large Force Employment

F-16(30) F-117 F-15E F-22 ABL
JSTARS JSF
B-1B A-10

Common Synthetic Battlespace

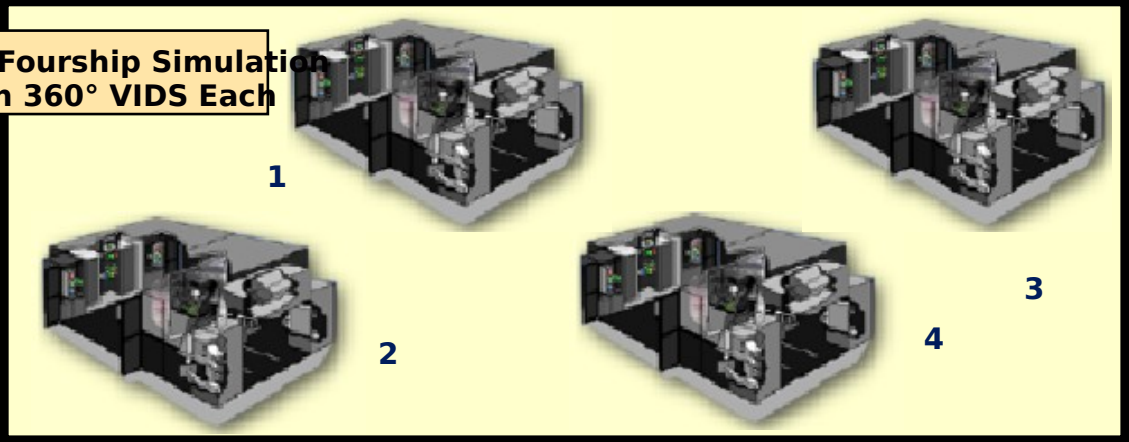
Connectivity to Joint and Service Systems

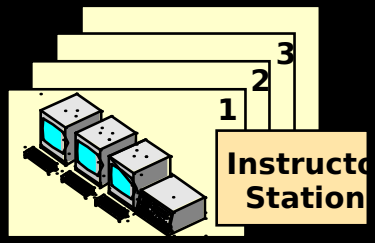
Incremental Expansion of DMT Network and Capab

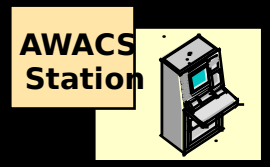
Team Training → **Mission Rehearsal**

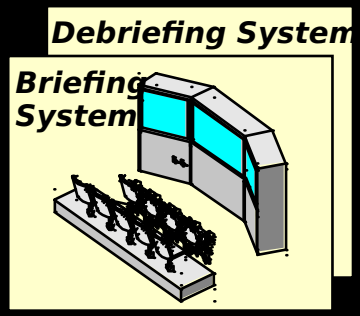
FY 99 FY 01 FY 02 FY04 FY 06 FY 07 FY 08 FY 10

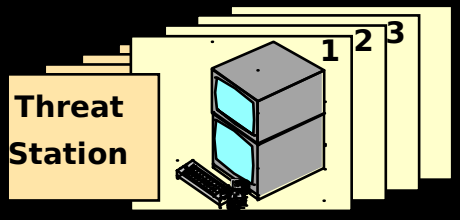
F-15C MISSION TRAINING CENTER

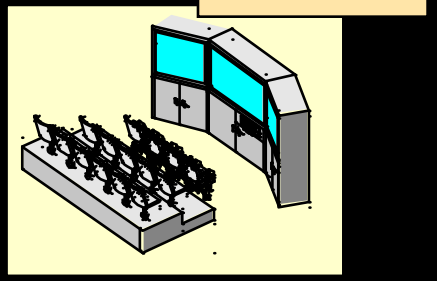












Eglin AFB - March 99 Langley AFB - June 99

Training Effectiveness Evaluation Jul-Sep 99

COMACC Briefing - Dec 99

AWACS & F-16 BLOCK40/50 INITIATIVES

- Contract awarded 18 Feb
- July 99 - Connect with F-15C MTCs through Boeing contract
- Mar 01 - Tinker MTC

- Expected contract award - May 9
- Block 50 - FY01-04
  - Aug 01 - Shaw AFB MTC
- Block 40 - FY04

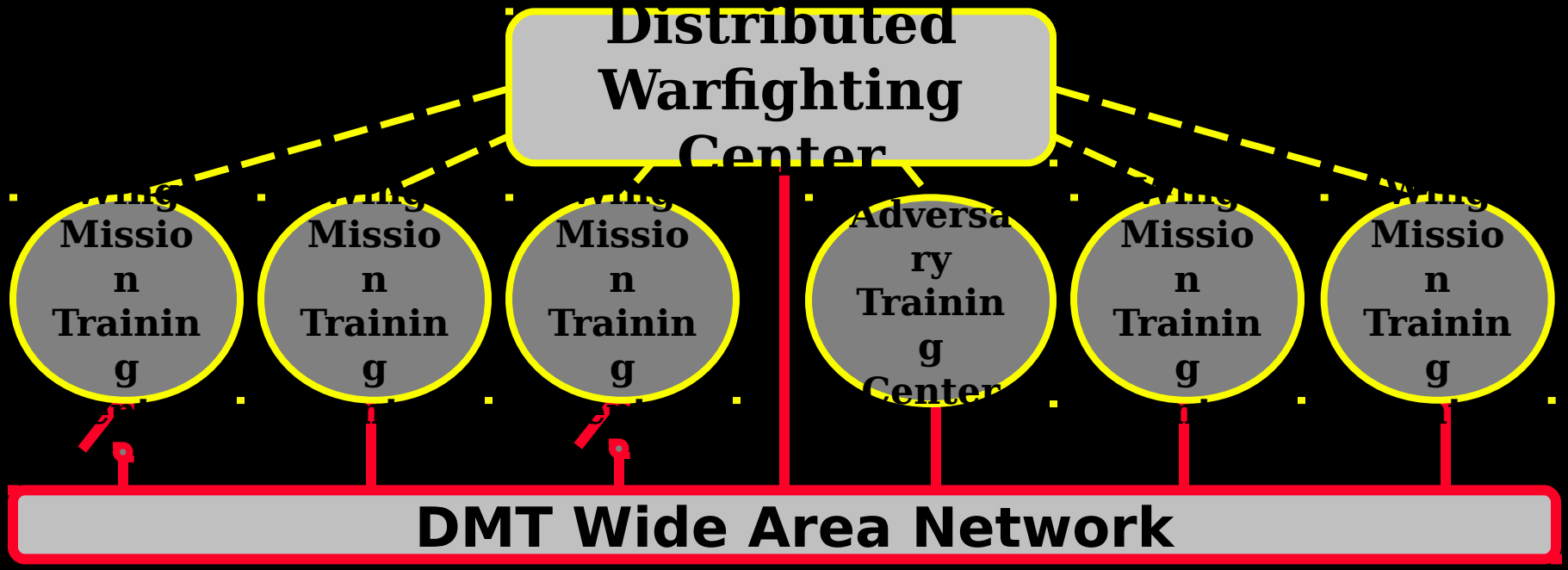
OTHER INITIATIVES

Rivet Joint - Adjusted Simulator upgrade proposal to include Phase 5 DMT Integration (est. FY02)

- B-1 - F model simulators will be DMT compatible
- F-15E - Exploring best path (legacy vs. new)
- A-10 - Fielding simulator first, then migrating
- B-2 - Becoming HLA compliant; waiting for Link 16 (est. FY02)
- F-22 - Planning for FY06
- JSF - Developing Joint Common Battlespace

MAIN DMT COMPONENTS

The operational unit Mission Training Center is the primary component of Aircrew DMT

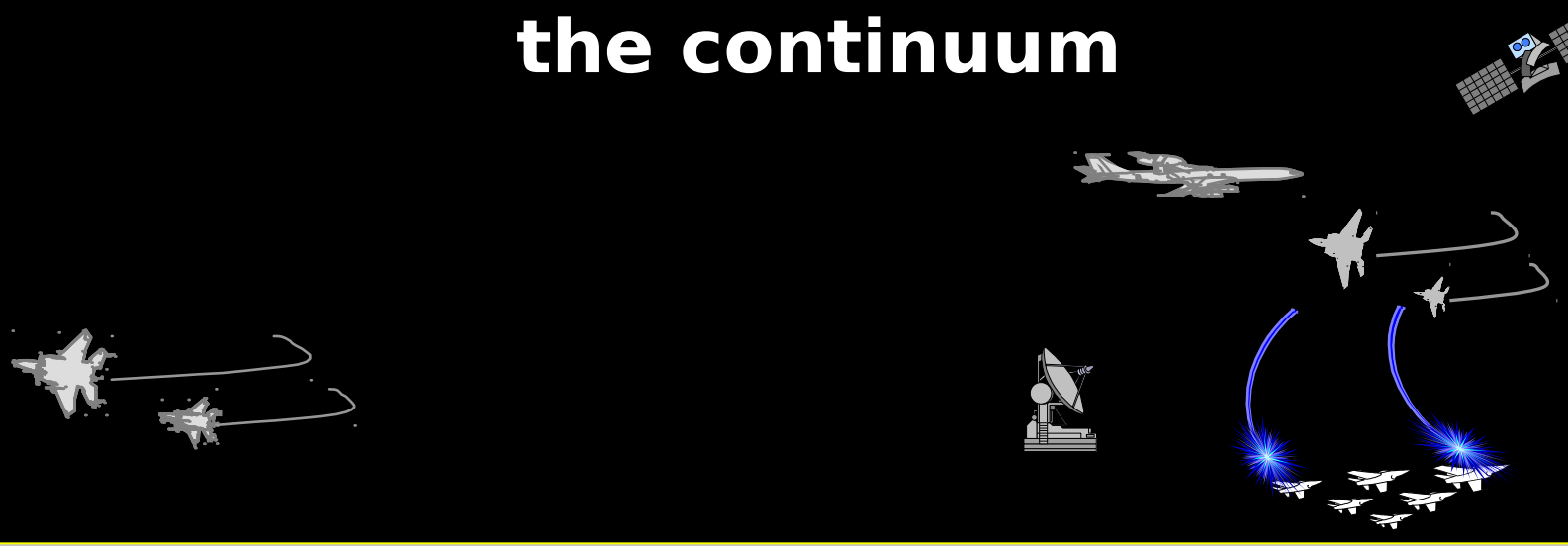


The Distributed Warfighting Center is a support component

DMT EVENT CONTINUUM

At any time multiple events run on the DMT network

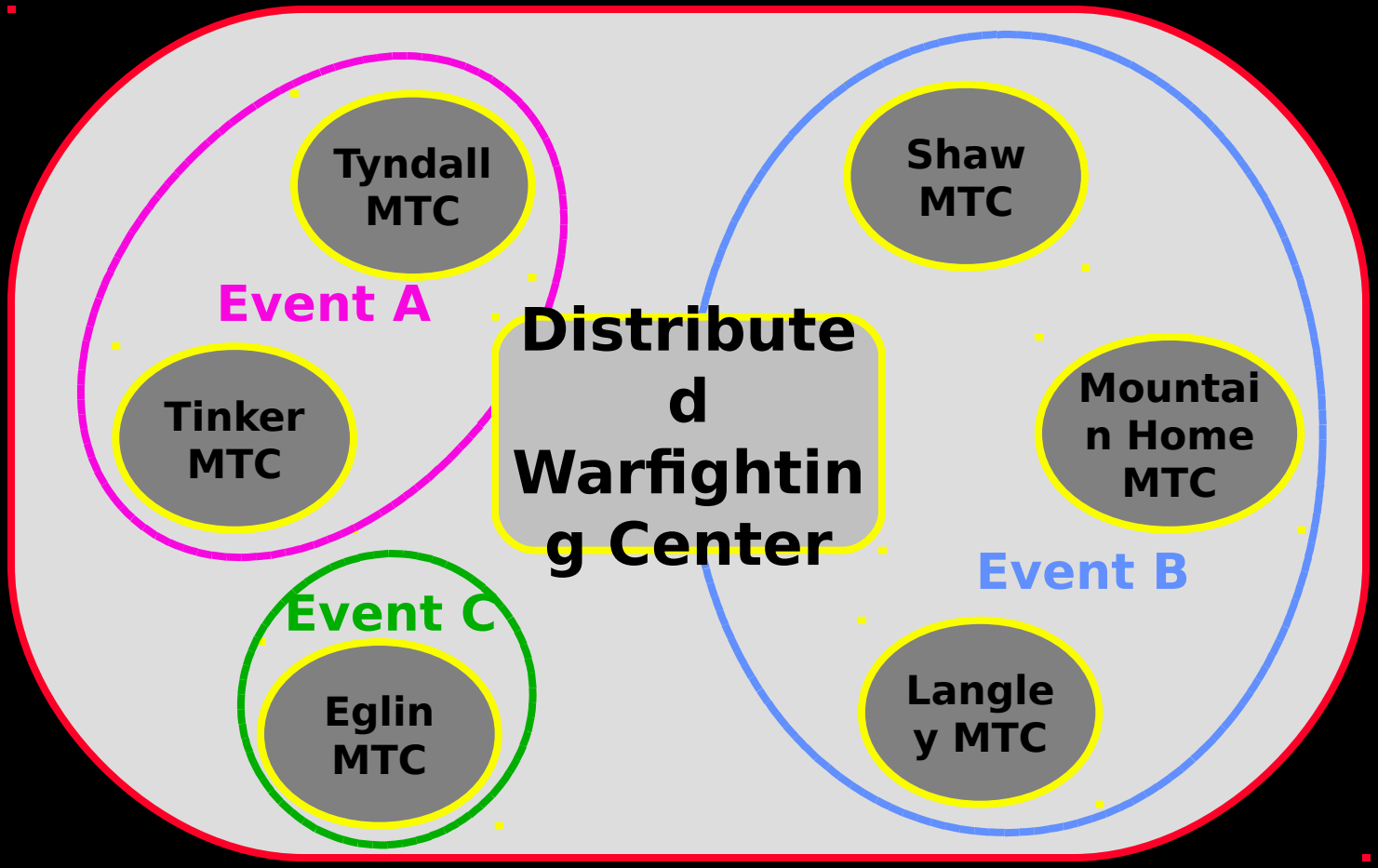
DWC will manage the coordination along the continuum



Stand-alone ⟷ **Large Distributed**

DMT EVENTS (FY 01)

Distributed Warfighting Center



The DWC will orchestrate multiple simultaneous events

DWC RESPONSIBILITIES

- **Warfighter Support**
  - **Scheduling DMT network resources**
  - **Create and manage large, distributed scenarios**
  - **Maintain common library of scenarios, threats, etc.,**
  - **Coordinate DMT growth**
  - **Assemble and maintain AEF data structures**
- **Technical Support / O& I Oversight**
  - **Multi-user interface**
  - **Component capability**
  - **Network standards**
  - **Network access**
  - **Common battlespace**

DMT CHALLENGES

- **Acceptance by warfighters**
  - **High fidelity visual systems**
  - **Realistic performance and interactions**

- **Operational utility**
  - **Multi-level security**
  - **Common databases and environments**
  - **Integration of legacy systems**
  - **Scheduling events and recording accomplishments**

DISTRIBUTED MISSION TRAINING

ACC's focus is Team Training to support unit warfighters

Improve combat capability through simulation of a real world environment

Combat readiness is the purpose of DMT